

REMARKS/ARGUMENTS

Favorable consideration of this application, as presently amended and in light of the following discussion is respectfully requested.

Claims 3-9, 13-17, 19-25, 29-33, 35-36, 39-45, and 49-53 are pending in the application. Claims 3-4, 6-7, 9, 19-20, 22-23, 25, 39-40, 42-43 and 45 are amended, and Claims 1-2, 18, 34 and 37-38 are canceled by the present amendment. Support for the amended claims can be found in the original specification, claims and drawings.¹ No new matter is presented.

In the outstanding Official Action, Claims 1-4, 18-20, 34 and 37-38 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement; Claims 1, 18, 34, 37 and 38 are rejected under 35 U.S.C. §103(a) as unpatentable over Iwakami et al. (U.S. Patent No. 5,684,920) in view of Davidson et al. (U.S. Patent No. 6,246,345) and Spaulding et al. (U.S. Patent No. 5,377,025); Claims 16, 17, 32, 33, 52 and 53 were rejected under 35 U.S.C. §102(a) as unpatentable over Yamagami et al. (U.S. Patent No. 5,072,290, hereinafter Yamagami); and Claims 3-9, 13-15, 19-25, 29-31, 35, 36, 39-45 and 49-51 were indicated as reciting allowable subject matter. Applicant's appreciatively acknowledge the indication of allowable subject matter.

The undersigned appreciatively acknowledge the courtesy extended by Examiner Hung by holding a personal interview with the undersigned on September 12, 2005. During the interview, the independent claims were discussed in light of the applied references and the rejection under 35 U.S.C. §112, first paragraph, was also discussed. No agreement was reached during the interview pending a formal response to the outstanding Official Action. The substance of the interview is reflected in the amended claims, and in the remarks presented below.

¹ Specification, e.g., original Claims 1, 18 and 37.

In the outstanding Official Action, Claims 1, 18, 34, 37 and 38 were rejected under 35 U.S.C. §103. However, Claims 3-4, 19-20 and 39-40, which depend from independent Claims 1, 18 and 37, respectively, were indicated as being allowed. Accordingly, Claims 3-4, 19-20 and 39-40 are amended to be in independent form by incorporating the subject matter of independent Claims 1, 18 and 37, respectively. Claims 1, 18, 34, 37 and 38 are canceled, thereby rendering the rejection of these claims under 35 U.S.C. §103 moot.

Further, Claims 1-4, 18-20, 34 and 37-38 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the outstanding Official Action cites the feature of “distance in a uniform color space”, which was a feature added by the previous Amendment of January 18, 2005, as failing to have adequate written support. During the interview, Examiner Hung agreed that amending these claims to recite “color difference” instead of “distance in a uniform color space”, as previously presented, would overcome this rejection. Accordingly, Claims 3-4, 19-20 and 39-40 are amended to incorporate the above-noted amendment and are supported by an adequate written description.

Accordingly, Applicants respectfully request that the rejections of Claims 3-4, 19-20 and 39-40 under 35 U.S.C. §112, first paragraph, be withdrawn.

Claims 3-4, 6-7, 9, 19-20, 22-23, 25, 39-40, 42-43 and 45, indicated in the outstanding Official Action as reciting allowable subject matter, are amended to more clearly recite the features of the claimed invention. Claims 3, 19 and 39, as amended, continue to recite “computing said color difference per unit error by averaging color differences over all values of G as a parameter among components R, G and B”, which is a feature of these claims specifically cited in the outstanding Official Action as allowable.² Further, amended Claims 4, 9, 20, 25, 40 and 45 recite “computing said color difference per unit error as an envelope

² Official Action of June 14, 2004, p. 7.

drawn through maximal points of color difference versus color signal plots for all values of G as a parameter among components R, G and B”, also indicated as an allowable feature by the outstanding Official Action.³ Amended Claims 6-7, 22-23, 42-43 recite substantially similar features as discussed above, and further depend from allowed independent Claims 5, 21 and 41, respectively.

Accordingly, Applicant respectfully submits that Claims 3-4, 6-7, 9, 19-20, 22-23, 25, 39-40, 42-43 and 45, as amended, patentably define over the applied references.

Claims 16-17, 32-33 and 52-53 were rejected under 35 U.S.C. §103(a) as unpatentable over Yamagami. Applicants respectfully traverse this rejection.

Claim 32 relates to a method for processing first and second color signals extracted from image signals for an image processing system. The method includes quantizing the first color signal and a distance of a position from a locus of points of equal values of the first and second color signals. The position corresponding to the first and second color signals is on a plane specified by the first and second color signals.

In an exemplary, non-limiting embodiment of the method of Claim 32, both the color signal (V) and the distance (L), inclusive of its sign, of a point on the VU plane from the straight line, $V=U$, are subject to quantization.⁴

Specifically, amended Claim 32 recites, *inter alia*, a method for processing first and second color signals, comprising:

quantizing said first color signal and a distance of a position from a locus of points of equal values of said first and second color signals, said position corresponding to said first and second color signals on a plane specified by said first and second color signals.

³ Id.

⁴ Specification, p. 37, lines 20-25.

Independent Claims 16 and 52 recite substantially similar subject matter, but are directed to alternative statutory classes. Therefore, the arguments presented below also apply to these claims.

Turning to the applied reference, Yamagami discloses a technique in which the quantization of a color component is controlled in relation to luminescence. Yamagami describes that the luminescence (Y), color difference (R-Y) and color difference (G-Y) are defined as components, and the quantization is controlled on the basis of the luminescence parameter (Y).⁵ Therefore, as discussed during the interview, Yamagami describes that the difference in color component is encoded.

In addressing Claim 32, the outstanding Official Action relies on Fig. 1 of Yamagami, and specifically reference numerals “14Y” and “14R”, which correspond to quantizers used to quantize components of a received color signal. However, quantizers “14Y”, “14R” of Yamagami are configured to quantize the luminescence (Y) and two color difference signals (R-Y and G-Y).⁶ As discussed above, none of these signals correspond to a distance of a position from a locus of points of equal values of said first and second color signals, as recited in Claim 32. Further, at no point does Yamagami teach or suggest quantizing a first color signal and a distance of a position between equal values of the first and a second color signal.

Therefore, as discussed during the interview, Yamagami fails to teach or suggest “quantizing said first color signal and a distance of a position from a locus of points of equal values of said first and second color signals, said position corresponding to said first and second color signals on a plane specified by said first and second color signals”, as recited in Claim 32.

⁵ Yamagami at col. 4, lines 10-28.

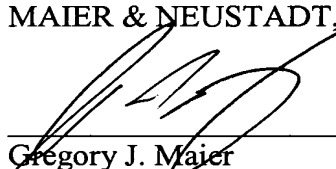
⁶ Id., col. 6, lines 40-48.

Accordingly, Applicant requests that the rejection of Claim 32 under 35 U.S.C. §103(a) be withdrawn. For substantially the same reasons as given with respect to Claim 32, it is also submitted that independent Claims 16 and 52 also patentably define over Yamagami.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 3-9, 13-17, 19-25, 29-33, 35-36, 39-45, and 49-53 is patentably distinguishing over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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